

WHAT IS CLAIMED IS:

1. A plate for use in a plasma display panel, comprising:
 - 2 a substrate;
 - 3 a dielectric layer formed on a top surface of the substrate; and
 - 4 partitions spaced a predetermined distance apart from each other and a snaking shape in a
 - 5 common direction to form a plurality of channels between adjacent ones of the partitions, the
 - 6 channels including main discharge spaces and auxiliary discharge spaces alternately arranged and
 - 7 connected to each other through the channels, red, green and blue phosphors coated in the main
 - 8 discharge spaces accommodating the red, green, blue phosphors being arranged in a triangular shape
 - 9 and the green and red phosphors being aligned with each other in a direction approximately
 - 10 perpendicular to the common direction.
1. The plate of claim 1, with the partitions comprising first partition portions forming
2 the main discharge spaces, second partition portions forming auxiliary discharge spaces, and third
3 partition portions connecting the first and second partition portions, and thicknesses of the first
4 partition portions forming the main discharge spaces, where the red and green phosphors are coated,
5 are greater than thicknesses of the first partition portions forming the main discharge spaces where
6 the blue phosphor is coated.
1. The plate of claim 1, further comprised of the blue phosphor being coated on the main
2 discharge spaces at a thickness greater than a thickness of the red and green phosphors.

1 4. A plate for a plasma display panel, comprising:
2 a substrate;
3 a dielectric layer formed on a top surface of the substrate;
4 first partitions formed in a striped pattern on the top surface of the dielectric layer and spaced
5 a predetermined distance apart from each other, the first partitions including recessed portions
6 formed at opposite sides of the first partitions and adjacent to the first partitions; and
7 second partitions spaced a predetermined distance apart from each other in a snaking shape
8 to form main discharge spaces in cooperation with the recessed portions and forming auxiliary
9 discharge spaces in cooperation with lateral surfaces of adjacent the first partitions that are adjacent
10 to the recessed portions.

5. The plate of claim 4, further comprising red and green phosphors coated on respective
main discharge spaces formed by adjacent pairs of the first and second partitions, and a blue
phosphor coated on the respective main discharge spaces formed by adjacent pairs of the second
partitions.

1 6. The plate of claim 4, further comprising first and second phosphors coated on the
2 respective first and second main discharge spaces formed by adjacent pairs of the first and second
3 partitions, and a third phosphor coated on the third main discharge spaces formed by adjacent pairs
4 of the second partitions, the third main discharge spaces including an opening area accommodating
5 the third phosphor to being greater than the opening area of the first discharge space accommodating

6 the first phosphor, and the second discharge space accommodating the second phosphor, the main
7 discharge spaces including the first, second, and third discharge spaces.

1 7. The plate of claim 4, further comprising first and second phosphors coated on the
2 respective first and second main discharge spaces formed by adjacent pairs of the first and second
3 partitions, and a third phosphor coated on the third main discharge spaces formed by adjacent pairs
4 of the second partitions, the main discharge spaces including the first, second, and third discharge
5 spaces, the thicknesses of the second partition portions forming the first and second main discharge
6 spaces being greater than the thicknesses of the first partition portions forming the third main
7 discharge spaces.

1 8. The plate of claim 7, further comprising sustaining and common electrodes arranged
2 at the interface between the first, second, and third main discharge spaces.

1 9. The plate of claim 8, with the sustaining and common electrodes each including
2 auxiliary electrodes positioned in the main discharge spaces.

1 10. The plate of claim 5, further comprised of a thickness of the blue phosphor being
2 greater than a thickness of the red and green phosphors.

1 11. A plasma display panel, comprising:

2 a substrate;

3 data electrodes formed on a top surface of the substrate;

4 a first dielectric layer formed on the substrate to cover the data electrodes;

5 first partitions including a striped pattern, spaced a predetermined distance apart from each

6 other and disposed on a top surface of the first dielectric layer, the first partitions including recessed

7 portions at opposite sides of adjacent ones of the first partitions;

8 second partitions spaced a predetermined distance apart from each other in a snaking shape

9 to form main discharge spaces in cooperation with the recessed portions and to form auxiliary

10 discharge spaces in cooperation with lateral surfaces of the first partitions adjacent to the recessed

11 portions;

12 phosphors coated in the main discharge spaces;

13 a front plate sealed with the substrate;

14 common electrodes and sustaining electrodes arranged over the main discharge spaces in a

15 direction not parallel with a direction of the data electrodes on a bottom surface of the front plate;

16 and

17 a second dielectric layer formed on the bottom surface of the front plate to cover the common

18 and sustaining electrodes.

1 12. The plasma display panel of claim 11, with the phosphors comprising red and green

2 phosphors coated on the respective main discharge spaces formed by adjacent first and second

3 partitions, and a blue phosphor coated on the respective main discharge spaces formed by adjacent

4 second partitions.

1 13. The plasma display panel of claim 12, further comprised of a thickness of the blue
2 phosphor being greater than a thickness of the red and green phosphors.

1 14. The plasma display panel of claim 11, further comprised of the common electrodes
2 and the sustaining electrodes being arranged above a boundary between a first and second main
3 discharge spaces formed by adjacent first and second partitions and a third main discharge space
4 formed by adjacent second partitions.

1 15. The plasma display panel of claim 12, further comprising auxiliary electrodes
2 positioned in the main discharge spaces and extending toward one another from opposing sides of
3 the common and sustaining electrodes.

1 16. The plasma display panel of claim 11, further comprised of the blue phosphor being
2 coated on the main discharge spaces at a thickness greater than a thickness of the red and green
3 phosphors.